

REMARKS/ARGUMENTS

Claim 8 was amended. Claims 1-7 and 9-16 remain unchanged.

Claim 8 was amended to corrected the informality the Examiner pointed out.

The Examiner rejected independent claim 1 under 35 USC 103(a) as being unpatentable over Goble et al (US 6,565,605).

We would like to point out the following differences of the present invention from the Goble et al patent:

The present invention utilizes a pair of first components (modular component 210 and 230) and a pair of second components (modular components 220 and 240), as shown in FIG. 9. The first components articulate directly with the second components to connect the first and second vertebrae. Contrary to that, Goble et al provides a one-piece first component 75 and a one-piece second component 85 for connecting the adjacent first and second vertebrae, 5 and 10. The one-piece components 75, 85 extend across the width of the vertebrae 5, 10, respectively. The use of one-piece first and second components requires that the facets 25 and 45 of vertebrae 5 and 10, respectively, are resected prior to the attachment of the one-piece components (column 4, lines 40- 46) due to the size and geometry of the one-piece components. Furthermore, the bridge 95 of the one-piece component 75 is shaped to match the geometry of the lamina (posterior arch) 30 of vertebra 5 in order to provide adequate clearance for the central foramen, (column 4, lines 57-60). This increases the cost of manufacturing the one-piece components. The use of separate pairs of first and second components, in the present invention, allows them to be made small, inexpensive and to have geometries that do not require prior resection of the facets or the lamina. Furthermore, the small size of the first and second components of the present invention allows them to be implanted using

minimally invasive surgery through an MIS cannula, as opposed to open spine surgery, required for the larger sized one-piece components of the cited prior art.

In the present invention each of the first components comprises a body and a male articulation member attached to the component body and each of the second components comprise a body and a female articulation member attached to the component body, as claimed in claim 1. The first components are articulately connected to the second components by engaging the male articulation members with the female articulation members, i.e., there is a true articulating structure. Contrary to that, Goble et al describes that “articular surfaces 130 articulate with the opposing inferior facets of the vertebra 5” (column 5, lines 19-20). In other words, there is no articulating component attached to the main body, but rather a surface 130 of the one-piece component. Furthermore, the surface 130 of the component 130 does not truly articulate with the other one-piece component, but rather rubs against the facet surface of the adjacent vertebra. This type of surface rubbing between a surface of the one-piece component and the surface of an opposing facet is not a true constrained articulation as described in the present invention and claimed in claim 1. The present articulation mechanism requires a male and a female articulation members attached to the corresponding first and second components and provides a true constrained articulation between the first and second components. There is no suggestion anywhere in the Goble et al patent of this type of articulation mechanism.

We also would like to bring to the Examiner’s attention the fact that this type of articulating mechanism has been recognized for its uniqueness in the parent application 10/364,847 (now issued patent 6,669,729) of the present application.

Based on these differences, it believed that independent claim 1 of the present invention is patentably distinguishable from the Goble et al patent. Independent claims 13 and 14 are method claims corresponding to the device claim 1 and include the same limitations of claim 1. Accordingly, the above mentioned differences between the present invention

and the cited prior art are also applicable to these method claims and therefore claims 13 and 14 are believed to be also allowable.

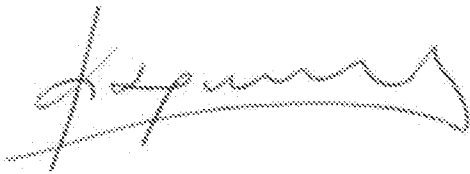
Claims 3-8, 12 and 16 depend upon claim 1 and since claim 1 is believed to be allowed they should also be allowed. Claims 2, 9-11 and 15 were previously allowed.

In view of the above, it is submitted that all claims are in condition for allowance. Reconsideration of the rejections and objections is requested and allowance of all claims at an early date is solicited.

A formal drawing for FIG. 9 was previously transmitted to the USPTO on 9/28/2005 via a facsimile and a confirmation receipt was received. The same drawing is also attached as a separate sheet at the end of this response.

If this response is found to be incomplete, or if a telephone conference would otherwise be helpful, please call the undersigned at 781-235-4407

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Aliko K. Collins', with a stylized, flowing script.

Aliko K. Collins, Ph.D.

Reg. No. 43,558

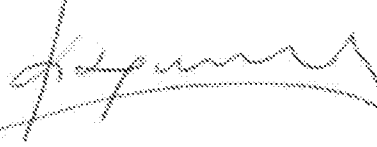
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TEL: 781-235-4407, FAX: 781-235-4409

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Date of Deposit _____ 1/5/07 _____

Name: Aliko K. Collins, Ph.D. Signature

A handwritten signature in black ink, appearing to read "Aliko K. Collins", written over a dotted line.

I hereby certify under 37 CFR 1.10 that this correspondence is being electronically transmitted on the date indicated above and is addressed to the Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450